PASTAN et al.

Application No.: 09/673,707

Page 2

Amendments to the Specification:

Please replace the paragraph beginning at page 2, line 29, with the following:

-Thus in one embodiment, this invention provides an immunotoxin comprising a cytotoxin attached to an anti-gp120 antibody having the binding specificity of 3B3 and a minimum binding affinity about the same as 3B3(Fv), wherein the immunotoxin specifically binds to and kills mammalian cells infected with HIV-1. The cytotoxic component of the immunotoxin can be virtually any cytotoxin including, but not limited to ricin, abrin, a modified diphtheria toxin (e.g. DT388), and a modified Pseudomonas exotoxin (e.g. PE38). Particularly preferred immunotoxins comprise a modified Pseudomonas exotoxin (e.g., PE38, PE40, PE38KDEL (KDEL = SEQ ID NO:9), PE38REDL (REDL = SEQ ID NO:10), etc.) with an immunotoxin comprising PE38 being most preferred. The immunotoxin can include virtually any 3B3 antibody, however particularly preferred antibodies include a single-chain Fv (scFv), a single-chain Fab (scFab), and a disulfide stabilized Fv (dsFv). The antibody can comprise a recombinantly expressed single-chain Fv. In a most preferred embodiment, the antibody is 3B3(Fv). The 3B3 antibody and the cytotoxin can be chemically conjugated together or they can be a fusion protein. In the latter case the immunotoxin can be recombinantly expressed (i.e. a recombinantly expressed fusion protein). In a most preferred embodiment, the immunotoxin is 3B3(Fv)-PE38. Any of the immunotoxins described herein can be suspended or dissolved in a pharmaceutically acceptable carrier or excipient.

Please replace the paragraph beginning at page 18, line 20, with the following:

Other suitable modified *Pseudomonas* exotoxins include, but are not limited to, PE4E, a "full length" PE with a mutated and inactive native binding domain

PASTAN et al.

Application No.: 09/673,707

Page 3

where amino acids 57, 246, 247, and 249 are all replaced by glutamates (*see, e.g.,* Chaudhary *et al.* (1995) *J. Biol. Chem.*, 265: 16306), PE40 which consists of amino acids 253-613 of PE, and PE38KDEL (KDEL = SEQ ID NO:9) which lacks domain Ia (amino acids 1-252) and part of domain Ib (amino acids 365-380), and also contains an altered carboxyl terminal sequence KDEL (SEQ ID NO:9) (Chaudhary *et al.* (1990) *Proc. Natl. Acad. Sci. USA*, 87: 308-12)

PATENT